

ABSTRACT OF THE DISCLOSURE

Method and apparatus for coating fertilizer in pellet or other form to impart time-release characteristics and the resulting coated pellet product. The polyurethane coating encapsulates fertilizer particles, forming a hydrophobic coating for slow-release qualities. The urethane polymer coating is formulated with an isocyanate and a combined fluid of a polyether polyol, a methyl ester derivative of plant or vegetable oil, a T-12 curing catalyst, barium sulfate, and an oil-based dye. The barium sulfate imparts physical strength to and enhances color quality of the polyurethane coating, and acts as a detackifier and maintains temperature in the coating reactor. The inventive formulation is effective in the practical polymer coating of sulfate-based or other fertilizer pellets in an inventive time-release fertilizer product. An apparatus is provided for carrying out the coating process.